

Date: Wed, 16 Mar 94 04:31:16 PST
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>
Errors-To: Ham-Space-Errors@UCSD.Edu
Reply-To: Ham-Space@UCSD.Edu
Precedence: Bulk
Subject: Ham-Space Digest V94 #59
To: Ham-Space

Ham-Space Digest Wed, 16 Mar 94 Volume 94 : Issue 59

Today's Topics:

AFC , Doppler, Trakbox and IC475H
 Antennas (2 msgs)
 DSP2232 and STEP Function
 Guide to the Personal Radio Newsgroups
Two-Line Orbital Element Set: Space Shuttle

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 15 Mar 1994 16:54:03 GMT
From: pacbell.com!att-out!att-in!news.bu.edu!olivea!charnel!yeshua.marcam.com!
news.kei.com!eff!usenet.ins.cwru.edu!howland.reston.ans.net!torn!csd.unb.ca!
upeil.ca!UPEI.CA!@ihnp4.ucsd.edu
Subject: AFC , Doppler, Trakbox and IC475H
To: ham-space@ucsd.edu

It is my understanding that the G3RUH modem and the TAPR PSK modem have an
interface circuit in order to correct for doppler shift using the MIC up/
down pin in the ICOM radios.

I have not yet seen any interfaces that can be used with the DSP2232 or the
TAPR Trakbox - both of which have a separate outputs for MIC UP and MIC DOWN
frequency control. Since there is only the one mic up/dn pin in the IC 275,
475 etc I was wondering if anyone is aware of an interface circuit in order
to place two outputs (from the DSP 2232 or Trakbox) into the MIC PIN 3
input. Comments, suggestions as to methods used by other modems or designs
would be greatly appreciated as well as I would like to observe the

difference on AO-16 using MIC stepping rather than through CAT control of the IC475.

Thanks for considering this request for information.

73, Dave, VY2DCS
Internet: Seeler@upei.ca

Date: Tue, 15 Mar 1994 14:28:46 GMT
From: ihnp4.ucsd.edu!swrinde!emory!wa4mei!ke4zv!gary@network.ucsd.edu
Subject: Antennas
To: ham-space@ucsd.edu

In article <199403150628.WAA28023@ucsd.edu> COWANR.ZAMA@zama-emh2.army.mil (Cowan, Roland MSG) writes:

>Ref AO-13:

>

>I found out today that "nobody likes the Cushcraft satellite antennas".

>Is this a fact or just an opinion?

It's a fact jack. :-) Actually, Cushcraft makes some decent antennas. Their long boomer series is quite acceptable. But the AOP package, of their 10T 2m and 20T 70cm antennas, is not acceptable. It can work after a fashion, but compared to other antenna systems available, it trails the pack. Some of the problems are that the antenna lobes aren't on boresite, the phasing arrangement and gamma matches are mickey mouse, the SWR and performance change markedly when wet, and antenna mechanics leave a lot to be desired.

>I wonder what is the "better" antenna combination for 144/430? Is the KLM
>that great?

Yes! The KLM22C and 40CX are that great. When used with the optional fiberglass crossboom, the two antennas boresite to the same point in space, the feed networks are good, they're more or less immune to environmental issues like rain and ice, and antenna mechanical construction is sound. (The extra gain over the AOP package doesn't hurt either.)

I haven't tried the Hy Gain antennas, but I hear that they're really ruggedly built. Whether their electrical performance is good or not, I don't know. I do know this, most of the better mode B stations run the KLM antennas. When I switched from Cushcraft to the KLMS, I went from only being able to hear and work the strong stations to being able to hear the spin modulation on the transponder noise floor, and being able to work *any* station that could get a signal up to the noise floor.

In between the AOP and the KLMs I had up 4 Cushcraft 32-19 long boomers in a box array with 4 424B long boomers in another box array. That system worked, but not being CP I got a lot of spin modulation, and because of the size I burnt out my elevation rotator. The KLMs have nearly as much gain, are circular polarized, and are mechanically much easier to handle.

If you can't afford both antennas, at least get the 22C for two meter downlink. With a good mast mount preamp you'll be able to hear anything down to the transponder noise floor. That's all you can do. You can compensate for a lesser 70 cm antenna by turning up the wick on the amplifier, but you need to be able to hear as well as possible.

Gary

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Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 15 Mar 1994 08:15:23 -0800

From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!usenet.ins.cwru.edu!eff!
news.kei.com!ssd.intel.com!chnews!ornews.intel.com!ornews.intel.com!not-for-
mail@network.ucsd.edu

Subject: Antennas

To: ham-space@ucsd.edu

gary@ke4zv.atl.ga.us (Gary Coffman) writes:

>Yes! The KLM22C and 40CX are that great. When used with the optional
>fiberglass crossboom, the two antennas boresite to the same point in
>space, the feed networks are good, they're more or less immune to
>environmental issues like rain and ice, and antenna mechanical construction
>is sound. (The extra gain over the AOP package doesn't hurt either.)

I had the AOP package and it worked fine, except when the satellite was marginal. I had a 100W amp and this did not help the strength of the uplink. Downlink is OK and aided with an in-shack GaAs preamp. I upgraded to the 40CX which degraded with time. Turned out the minibox housing the relay was not entirely sealed, filled with water and ruined the SWR/performance. Make sure that box is well sealed! I'm still using the AOP 2M ant. for receive.

George
WB6YZZ

Date: Tue, 15 Mar 1994 16:58:39 GMT
From: pacbell.com!att-out!att-in!news.bu.edu!olivea!charnel!yeshua.marcam.com!
news.kei.com!eff!news.umbc.edu!europa.eng.gtefsd.com!howland.reston.ans.net!torn!
csd.unb.ca!upei.@ihnp4.ucsd.edu
Subject: DSP2232 and STEP Function
To: ham-space@ucsd.edu

Just a quick question to those who have received the Dec 1993 upgrade for the DSP2232. I was wondering if anyone has received any information with respect to the step function for radio frequency control of doppler effect? It seems to me that the function is non-operable when using PB (KISS Mode) and I wonder if so - what is it's purpose at least for the digital satellites. I would like to hear from anyone who has more information as to the function over what is in the manual - esp as to what the numbers signify on the front of the unit.

Thanks - Dave, VY2DCS
Internet: Seeler@upei.ca

Date: Tue, 15 Mar 1994 12:01:57 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!wupost!crcnis1.unl.edu!
news.unomaha.edu!news@network.ucsd.edu
Subject: Guide to the Personal Radio Newsgroups
To: ham-space@ucsd.edu

Posted-By: auto-faq 3.2.1.2
Archive-name: radio/personal-intro
Revision: 1.5 12/18/93 14:15:53
Changes: new mailing lists, .packet rmgroup, and .policy updates

(Note: The following is reprinted with the permission of the author.)

This message describes the rec.radio.amateur.*, rec.radio.cb, rec.radio.info, and rec.radio.swap newsgroups. It is intended to serve as a guide for the new reader on what to find where. Questions and comments may be directed to the author, Jay Maynard, K5ZC, by Internet electronic mail at jmaynard@oac.hsc.uth.tmc.edu. This message was last changed on 18 September 1993 to add the mailing lists for the new rec.radio.amateur newsgroups, to note the rmgroup of rec.radio.amateur.packet, and to officially retire some (in)famous threads of discussion on rec.radio.amateur.policy.

History
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Way back when, before there was a Usenet, the Internet hosted a mailing list for hams, called (appropriately enough) INFO-HAMS. Ham radio discussions were held on the mailing list, and sent to the mailboxes of those who had signed up for it. When the Usenet software was created, and net news as we now know it was developed, a newsgroup was created for hams: net.ham-radio. The mailing list and the newsgroup were gatewayed together, eventually.

As the net grew, and as packet radio came into vogue, packet discussion began to dominate other topics in the group and on the list. This resulted in the logical solution: a group was created to hold the packet discussion, and another corresponding mailing list was created as well: net.ham-radio.packet and PACKET-RADIO, respectively.

These two groups served for several years, and went through Usenet's Great Renaming essentially unchanged, moving from net.ham-radio[.packet] to rec.ham-radio[.packet]. Readership and volume grew with the rest of the network.

The INFO-HAMS mailing list was originally run from a US Army computer at White Sands Missile Range, SIMTEL20. There were few problems with this arrangement, but one was that the system was not supposed to be used for commercial purposes. Since one of hams' favorite pastimes is swapping gear, it was natural for hams to post messages about equipment for sale to INFO-HAMS/rec.ham-radio. This ran afoul of SIMTEL20's no-commercial-use restriction, and after some argument, a group was created specifically for messages like that: rec.ham-radio.swap. This group wasn't gatewayed to a mailing list, thus avoiding problems.

While all this was happening, other folks wanted to discuss other aspects of the world of radio than the personal communications services. Those folks created the rec.radio.shortwave and rec.radio.noncomm newsgroups, and established the precedent of the rec.radio.* hierarchy, which in turn reflected Usenet's overall trend toward a hierarchical name structure.

The debate between proponents of a no-code ham radio license and its opponents grew fierce and voluminous in late 1989 and 1990. Eventually, both sides grew weary of the debate, and those who had not been involved even more so. A proposal for a newsgroup dedicated to licensing issues failed. A later proposal was made for a group that would cover the many recurring legal issues discussions. During discussion of the latter proposal, it became clear that it would be desirable to fit the ham radio groups under the rec.radio.* hierarchy. A full-blown reorganization was passed by Usenet voters in January 1991, leading to the overall structure we now use.

After the reorganization, more and more regular information postings began to appear, and were spread out across the various groups in rec.radio.*. Taking the successful example of the news.answers group, where informational postings from across the net are sent, the group rec.radio.info was created in

December, 1992, with Mark Salyzyn, VE6MGS, initially serving as moderator.

In January, 1993, many users started complaining about the volume in rec.radio.amateur.misc. This led to a discussion about a second reorganization, which sparked the creation of a mailing list by Ian Kluft, KD6EUI. This list, which was eventually joined by many of the most prolific posters to the ham radio groups, came up with a proposal to add 11 groups to the rec.radio.amateur hierarchy in April 1993. The subsequent vote, held in May and early June, approved the creation of five groups: rec.radio.amateur.digital.misc (to replace .packet), .equipment, .homebrew, .antenna, and .space.

The Current Groups

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I can hear you asking, "OK, so this is all neat history, but what does it have to do with me now?" The answer is that the history of each group has a direct bearing on what the group is used for, and what's considered appropriate where.

The easy one is rec.radio.amateur.misc. It is what rec.ham-radio was renamed to during the reorganization. Any message that's not more appropriate in one of the other groups belongs here, from contesting to DX to ragchewing on VHF to information on becoming a ham.

The group rec.radio.amateur.digital.misc is for discussions related to (surprise!) digital amateur radio. This doesn't have to be the common two-meter AX.25 variety of packet radio, either; some of the most knowledgeable folks in radio digital communications can be found here, and anything in the general area is welcome. The name was changed to emphasize this, and to encourage discussion not only of other text-based digital modes, such as AMTOR, RTTY, and Clover, but things like digital voice and video as well. The former group, rec.radio.amateur.packet, should be removed by September 21st, 1993. It is obsolete, and you should use .digital.misc instead (or the appropriate new mailing list, mentioned below). The group has .misc as part of the name to allow further specialization if the users wish it, such as .digital.tcp-ip.

The swap group is now rec.radio.swap. This recognizes a fact that became evident shortly after the original group was formed: Hams don't just swap ham radio gear, and other folks besides hams swap ham equipment. If you have radio equipment, or test gear, or computer stuff that hams would be interested in, here's the place. Equipment wanted postings belong here too. Discussions about the equipment generally don't; if you wish to discuss a particular posting with the buyer, email is a much better way to do it, and the other groups, especially .equipment and .homebrew, are the place for public discussions. There is now a regular posting with information on how to go about buying and selling items in rec.radio.swap; please refer to it before you post there.

The first reorganization added two groups to the list, one of which is `rec.radio.amateur.policy`. This group was created as a place for all the discussions that seem to drag on interminably about the many rules, regulations, legalities, and policies that surround amateur radio, both existing and proposed. Recent changes to the Amateur Radio Rules (FCC Part 97) have finally laid to rest the Great Usenet Pizza Autopatch Debate as well as complaints about now-preempted local scanner laws hostile to amateurs, but plenty of discussion about what a bunch of rotten no-goodniks the local frequency coordinating body is, as well as the neverending no-code debate, may still be found here.

The other added group is `rec.radio.cb`. This is the place for all discussion about the Citizens' Band radio service. Such discussions have been very inflammatory in `rec.ham-radio` in the past; please do not cross-post to both `rec.radio.cb` and `rec.radio.amateur.*` unless the topic is genuinely of interest to both hams and CBers - and very few topics are.

The `rec.radio.info` group is just what its name implies: it's the place where informational messages from across `rec.radio.*` may be found, regardless of where else they're posted. As of this writing, information posted to the group includes Cary Oler's daily solar propagation bulletins, ARRL bulletins, the Frequently Asked Questions files for the various groups, and radio modification instructions. This group is moderated, so you cannot post to it directly; if you try, even if your message is crossposted to one of the other groups, your message will be mailed to the moderator, who is currently Mark Salyzyn, VE6MGS. The email address for submissions to the group is `rec-radio-info@ve6mgs.ampr.ab.ca`. Inquires and other administrivia should be directed to `rec-radio-request@ve6mgs.ampr.ab.ca`. For more information about `rec.radio.info`, consult the introduction and posting guidelines that are regularly posted to that newsgroup.

The groups `rec.radio.amateur.antenna`, `.equipment`, `.homebrew`, and `.space` are for more specialized areas of ham radio: discussions about antennas, commercially-made equipment, homebrewing, and amateur radio space operations. The `.equipment` group is not the place for buying or selling equipment; that's what `rec.radio.swap` is for. Similarly, the `.space` group is specifically about amateur radio in space, such as the OSCAR program and SAREX, the Shuttle Amateur Radio EXperiment; other groups cover other aspects of satellites and space. Homebrewing isn't about making your own alcoholic beverages at home (that's `rec.crafts.brewing`), but rather construction of radio and electronic equipment by the amateur experimenter.

Except for `rec.radio.swap` and `rec.radio.cb`, all of these newsgroups are available by Internet electronic mail in digest format; send a mail message containing "help" on a line by itself to `listserv@ucsd.edu` for instructions on how to use the mail server.

All of the groups can be posted to by electronic mail, though, by using a gateway at the University of Texas at Austin. To post a message this way, change the name of the group you wish to post to by replacing all of the '.'s with '-'s - for example, rec.radio.swap becomes rec-radio-swap - and send to that name@cs.utexas.edu (rec-radio-swap@cs.utexas.edu, for example). You may crosspost by including multiple addresses as Cc: entries (but see below). This gateway's continued availability is at the pleasure of the admins at UT-Austin, and is subject to going away at any time - and especially if forgeries and other net.abuses become a problem. You have been warned.

A Few Words on Crossposting

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Please do not crosspost messages to two or more groups unless there is genuine interest in both groups in the topic being discussed, and when you do, please include a header line of the form "Followup-To: group.name" in your article's headers (before the first blank line). This will cause followups to your article to go to the group listed in the Followup-To: line. If you wish to have replies to go to you by email, rather than be posted, use the word "poster" instead of the name of a group. Such a line appears in the headers of this article.

One of the few examples of productive cross-posting is with the rec.radio.info newsgroup. To provide a filtered presentation of information articles, while still maintaining visibility in their home newsgroups, the moderator strongly encourages cross-posting. All information articles should be submitted to the rec.radio.info moderator so that he may simultaneously cross-post your information to the appropriate newsgroups. Most newsreaders will only present the article once, and network bandwidth is conserved since only one article is propagated. If you make regular informational postings, and have made arrangements with the moderator to post directly to the group, please cross-post as appropriate.

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Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jmaynard@oac.hsc.uth.tmc.edu | adequately be explained by stupidity.

"If my car ran OS/2, it'd be there by now" -- bumper sticker

GCS d++ p+ c++ l+ m+/- s/++ g++ w++ t+ r

--

73, Paul W. Schleck, KD3FU

pschleck@unomaha.edu

Date: Mon, 14 Mar 1994 17:44:46 MST

From: ihnp4.ucsd.edu!usc!math.ohio-state.edu!cyber2.cyberstore.ca!nntp.cs.ubc.ca!

alberta!ve6mgs!usenet@network.ucsd.edu
Subject: Two-Line Orbital Element Set: Space Shuttle
To: ham-space@ucsd.edu

The most current orbital elements from the NORAD two-line element sets are carried on the Celestial BBS, (513) *253-9767*, and are updated daily (when possible). Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial BBS may be accessed 24 hours/day at 300, 1200, 2400, 4800, or 9600 bps using 8 data bits, 1 stop bit, no parity.

Element sets (also updated daily), shuttle elements, and some documentation and software are also available via anonymous ftp from archive.afit.af.mil (129.92.1.66) in the directory pub/space.

STS 62

1 23025U 94015A 94073.32846065 .00069430 75427-5 98989-4 0 257
2 23025 39.0144 184.6491 0007547 262.5411 240.1813 16.04851851 1551

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Assistant Professor of Space Operations
Air Force Institute of Technology

End of Ham-Space Digest V94 #59

